

in which:

$R_1$  is CN or methyl or a halogen atom;

$R_2$  is  $S(O)_n R_3$  or 4,5-dicyanoimidazol-2-yl or haloalkyl;

$R_3$  is alkyl or haloalkyl;

$R_4$  represents a hydrogen or halogen atom; or a radical  $NR_5 R_6$ ,  $S(O)_m R_7$ ,  $C(O)R_7$ ,  $C(O)O-R_7$ , alkyl, haloalkyl or  $OR_8$  or a radical -  $N=C(R_9) (R_{10})$ ;

$R_5$  and  $R_6$  independently represent a hydrogen atom or an alkyl, haloalkyl,  $C(O)$ alkyl, alkoxy carbonyl or  $S(O)_r -CF_3$  radical;  $R_5$  and  $R_6$  may together form a divalent alkylene radical which may be interrupted by one or two divalent hetero atoms [such as oxygen or sulphur];

$R_7$  represents an alkyl or haloalkyl radical;

$R_8$  represents an alkyl or haloalkyl radical or a hydrogen atom;

$R_9$  represents an alkyl radical or a hydrogen atom;

$R_{10}$  represents a phenyl or heteroaryl group optionally substituted with one or more halogen atoms or groups such as OH, -O-alkyl, S-alkyl, cyano or alkyl;

$R_{11}$  and  $R_{12}$  represent, independently of each other, a hydrogen or halogen atom, or optionally CN or  $NO_2$ ;

$R_{13}$  represents a halogen atom or a haloalkyl, haloalkoxy,  $S(O)_q CF_3$  or  $SF_5$  group;

m, n, q and r represent, independently of each other, an integer equal to 0, 1 or 2;

C1  
amended  
B1

X represents a trivalent nitrogen atom or a radical C-R<sub>12</sub>, the other three valency positions of the carbon atom forming part of the aromatic ring;

with the proviso that when R<sub>1</sub> is methyl, then R<sub>3</sub> is haloalkyl, R<sub>4</sub> is NH<sub>2</sub>, R<sub>11</sub> is Cl, R<sub>13</sub> is CF<sub>3</sub> and X is N; or R<sub>2</sub> is 4,5-dicyanoimidazol-2-yl, R<sub>4</sub> is Cl, R<sub>11</sub> is Cl, R<sub>13</sub> is CF<sub>3</sub> and X is =C-Cl;

and[, on the other hand,] at least one ovicidal compound (B), of insect growth regulator (IGR) type, in a fluid vehicle which is acceptable to the animal and suitable for local application to the skin.--

✓ Claim 4, line 3, please delete ", preferably CF<sub>3</sub>".

Please amend Claim 5 as follows:

B2

~~19~~ 19--5. (Amended) Composition according to claim ~~1~~, 5 characterized in that the compound of formula (I) is such that R<sub>2</sub> is S(O)<sub>n</sub>R<sub>3</sub>, [preferably with n = 1,] and R<sub>3</sub> [preferably being] is CF<sub>3</sub> or alkyl[, in particular methyl or ethyl, or n = 0, R<sub>3</sub> preferably being CF<sub>3</sub>].--

Please amend Claim 10 as follows:

B3

~~24~~ 10. (Amended) Composition according to claim ~~1~~, 5 characterized in that the compound (B) is a compound which mimics juvenile hormones[, in particular:

azadirachtin  
diofenolan  
fenoxycarb  
hydroprene  
kinoprene

methoprene  
pyriproxyfen  
tetrahydroazadirachtin  
and 4-chloro-2-(2-chloro-2-methyl-propyl)-5-(6-iodo-3-pyridylmethoxy)pyridizine-3(2H)-one] or a chitin-synthesis inhibitor[, in particular:

chlorfluazuron  
cyromazine  
diflubenzuron  
fluazuron  
flucycloxuron  
flufenoxuron  
hexaflumuron  
lufenuron  
tebufenozide  
teflubenzuron  
triflumuron

1-(2,6-difluorobenzoyl)-3-(2-fluoro-4-(trifluoromethyl)phenylurea, 1-(2,6-difluoro-benzoyl)-3-(2-fluoro-4-(1,1,2,2-tetrafluoroethoxy)-phenylurea and 1-(2,6-difluorobenzoyl)-3-(2-fluoro-4-trifluoro-methyl)phenylurea].

[Please amend Claim 16 as follows:

*Sub 22*  
*OK*  
~~45--16.~~ (Amended) Composition according to claim ~~1, 5~~  
characterized in that the fluid vehicle and the concentration of  
the compounds (A) and (B) are adapted to local application on a  
zone with a surface area of less than 10 cm<sup>2</sup>[, especially between

5 and 10 cm<sup>2</sup>, in particular at two points and preferably localized between the animal's shoulders].--

Please amend Claims 18-25 as follows:

45 --18. (Amended) Composition according to claim 17, 44 characterized in that it contains a dose of from 1 to 20 mg/kg[, in particular from 2 to 10 mg/kg,] of compound (A) and from 1 to 30 mg/kg[, in particular 2 to 20 mg/kg,] of compound (B).--

65 e. 30 --19. (Amended) Composition according to claim 14, 5 131 characterized in that it also comprises a crystallization inhibitor (b), which is present [in particular] in a proportion of from 1 to 20% (W/V)[, preferably from 5 to 15%].--

31 33 --20. (Amended) Composition according to claim 19, 30 characterized in that the crystallization inhibitor (b) is [chosen from] selected from the group consisting of:

- polyvinylpyrrolidone, polyvinyl alcohols, copolymers of vinyl acetate and vinylpyrrolidone, polyethylene glycols, benzyl alcohol, mannitol, glycerol, sorbitol, polyoxyethylenated sorbitan esters; lecithin, sodium carboxymethylcellulose, methacrylates and other acrylic derivatives [such as methacrylates and the like],

- anionic surfactants [such as alkaline stearates, in particular sodium, potassium or ammonium stearate; calcium stearate; triethanolamine stearate; sodium abietate; alkyl sulphates, in particular sodium lauryl sulphate and sodium cetyl sulphate; sodium dodecylbenzenesulphonate, sodium dioctylsulphosuccinate; fatty acids, in particular those derived from coconut oil],

- cationic surfactants [such as water-soluble quaternary ammonium salts of formula  $N^+R'R''R'''R''''Y^-$  in which the radicals R are optionally hydroxylated hydrocarbon radicals and  $Y^-$  is an anion of a strong acid such as the halide, sulphate and sulphonate anions; cetyltrimethylammonium bromide is among the cationic surfactants which can be used],

- amine salts of formula  $N^+R'R''R'''$  in which the radicals R are optionally hydroxylated hydrocarbon radicals; [ octadecylamine hydrochloride is among the cationic surfactants which can be used,]

*B3 unit*  
- nonionic surfactants [such as optionally polyoxyethylenated sorbitan esters, in particular polysorbate 80, polyoxyethylenated alkyl ethers; polyethylene glycol stearate, polyoxyethylenated derivatives of castor oil, polyglycerol esters, polyoxyethylenated fatty alcohols, polyoxyethylenated fatty acids, copolymers of ethylene oxide and propylene oxide,];

- amphoteric surfactants [such as substituted lauryl compounds of betaine,]; and

[or preferably] a mixture of at least two of these crystallization inhibitors.--

*36 38*  
*--21.* (Amended) Composition according to claim *30*,  
characterized in that it comprises a crystallization inhibitor couple formed by the combination of a film-forming agent of polymeric type and a surfactant[, in particular in similar or identical amounts within the limit of the total amounts of crystallization inhibitor].--

37  
--22. (Amended) Composition according to claim ~~21~~, ~~35~~ 36  
characterized in that the film-forming agent is [chosen from]  
selected from the group consisting of:

- the various grades of polyvinylpyrrolidone,
- polyvinyl alcohols, and
- copolymers of vinyl acetate and vinyl pyrrolidone,

and in that the surfactant is selected from the group  
consisting of [chosen from non-ionic surfactants, preferably]  
polyoxyethylenated sorbitan esters, [in particular the] various  
grades of polysorbate, and other non-ionic surfactants.--

38 ~~44~~  
--23. (Amended) Composition according to claim ~~14~~, 5 31  
characterized in that it comprises an organic solvent (c) having a  
dielectric constant of between 10 and 35[, preferably 20 and 30,  
whose content in the overall composition preferably represents the  
difference to 100% of the composition].--

39 ~~44~~  
--24. (Amended) Composition according to claim ~~23~~, ~~44~~ 38  
characterized in that the organic solvent (c) is [chosen from]  
selected from the group consisting of acetone, acetonitrile, benzyl  
alcohol, butyldiglycol, dimethylacetamide, dimethylformamide,  
dipropylene glycol n-butyl ether, ethanol, isopropanol, methanol,  
ethylene glycol monoethyl ether, ethylene glycol monomethyl ether,  
monomethylacetamide, dipropylene glycol monomethyl ether, liquid  
polyoxyethylene glycols, propylene glycol, 2-pyrrolidone, [in  
particular N-methylpyrrolidone,] diethylene glycol monoethyl ether,  
ethylene glycol, diethyl phthalate, [or] and a mixture of at least  
two of these solvents.--

40  
--25. (Amended) Composition according to claim ~~23~~<sup>38</sup>,

B5  
acid  
characterized in that it also comprises an organic co-solvent (d) having a boiling point below 100°C, [preferably below 80°C,] and having a dielectric constant of between 10 and 40, [preferably between 20 and 30,] which is miscible with water and/or with the solvent (c), this co-solvent being present [in particular] in a co-solvent (d)/solvent (c) weight/weight (W/W) ratio of between 1/15 and 1/2.--

[Please amend Claim 27 as follows:

B4  
JUL 23  
~~14-27.~~ (Amended) [Composition according to claim ~~27~~<sup>5</sup> characterized in that it is made in the form of a] A kit comprising [combining], separately, in the same packaging, at least one container containing a compound (A) according to Claim 1 and at least one container [for] containing a compound (B) according to Claim 1, and a notice specifying that the containers are to be used alternately with an interval[, in particular of one month].--

[Please amend Claim 32 as follows:

B7  
10-32. (Amended) Composition according to claim ~~32~~<sup>6</sup>, characterized in that the compound (B) is a compound which mimics juvenile hormones[, in particular:

azadirachtin  
diofenolan  
fenoxycarb  
hydroprene  
kinoprene  
methoprene

pyriproxyfen  
tetrahydroazadirachtin  
and 4-chloro-2-(2-chloro-2-methyl-propyl)-5-(6-iodo-3-pyridylmethoxy)pyridizine-3(2H)-one] or a chitin-synthesis inhibitor[, in particular:

chlorfluazuron

cyromazine

diflubenzuron

fluazuron

flucycloxuron

flufenoxuron

hexaflumuron

lufenuron

tebufenozide

teflubenzuron

triflumuron

1-(2,6-difluorobenzoyl)-3-(2-fluoro-4-(trifluoromethyl)phenylurea, 1-(2,6-difluoro-benzoyl)-3-(2-fluoro-4-(1,1,2,2-tetrafluoroethoxy)-phenylurea and 1-(2,6-difluorobenzoyl)-3-(2-fluoro-4-trifluoro-methyl)phenylurea].--

Please amend Claims 45-48 as follows:

--45. (Amended) Process according to claim 38, wherein [it contains a dose of] the dose of the composition is from 1 to 20 mg/kg[, in particular from 2 to 20 mg/kg,] of compound (A) and from 1 to 30 mg/kg[, in particular 2 to 20 mg/kg,] of compound (B).--



--46. (Twice amended) Process for controlling fleas on small mammals[, and in particular cats and dogs,] over a long period, characterized in that the animal is treated by local application to the skin of parasitically effective doses and proportions of a composition according to claim 2.--

*amended*  
*B8*  
--47. (Twice amended) Process for controlling fleas on small mammals[, and in particular cats and dogs,] over a long period, characterized in that the animal is treated by local application to the skin of parasitically effective doses and proportions of a composition according to claim 8.--

Claim 48, line 2: Please delete ", in particular ticks".

Please add the following new claims 49-59:

*E* ~~47-50~~ --49. (New) Composition according to claim ~~1~~<sup>5</sup> wherein the ~~small~~ mammals protected by the composition comprise cats and dogs.--

*B9*  
~~26~~ --50. (New) Composition according to claim ~~10~~<sup>24</sup> wherein the compound which mimics juvenile hormones is selected from the group consisting of azadirachtin, diofenolan, fenoxycarb, hydroprene, kinoprene, methoprene, pyriproxyfen, tetrahydroazadirachtin, and 4-chloro-2-(2-chloro-2-methyl-propyl)-5-(6-iodo-3-pyridylmethoxy)-pyridizine-3(2H)-one.--

*27* ~~28~~ --51. (New) Composition according to claim ~~10~~<sup>25-24</sup> wherein the chitin-synthesis inhibitor is selected from the group consisting of chlorfluazuron, cyromazine, diflubenzuron, fluazuron, flucycloxuron, flufenoxuron, hexaflumuron, lufenuron, tebufenozide, teflubenzuron, triflumuron, 1-(2,6-difluorobenzoyl)-3-(2-fluoro-4-(trifluoromethyl)phenylurea, 1-(2,6-difluoro-benzoyl)-3-(2-fluoro-

4-(1,1,2,2-tetrafluoroethoxy)-phenylurea and 1-(2,6-difluoro-benzoyl)-3-(2-fluoro-4-trifluoro-methyl)phenylurea.--

*Sub 32*  
~~32~~ 32. (New) Composition according to claim ~~16~~ <sup>48 42</sup> wherein the fluid vehicle is adapted for local application at two points between the animal's shoulders.--

*B9*  
~~32~~ 32. (New) Composition according to claim ~~20~~ <sup>31</sup> wherein the anionic surfactant is selected from the group consisting of sodium, potassium or ammonium stearate or other alkaline stearates; calcium stearate; triethanolamine stearate; sodium abietate; sodium lauryl sulphate, sodium cetyl sulphate or other alkyl sulphates; sodium dodecylbenzenesulphonate, sodium dioctylsulphosuccinate; and fatty acids derived from coconut oil or other fatty acids.--

*33*  
~~33~~ 33. (New) Composition according to claim ~~20~~ <sup>31</sup> wherein the cationic surfactant is selected from the group consisting of water-soluble quaternary ammonium salts of formula  $N^+R'R''R'''Y^-$  in which the radicals R are optionally hydroxylated hydrocarbon radicals and  $Y^-$  is an anion of a strong acid; cetyltrimethylammonium bromide; amine salts of formula  $N^+R'R''$  in which the radicals R are optionally hydroxylated hydrocarbon radicals; and octadecylamine hydrochloride.--

*34*  
~~34~~ 34. (New) Composition according to claim ~~20~~ <sup>31</sup> wherein the nonionic surfactant is selected from the group consisting of polysorbate 80, polyoxyethylenated alkyl ethers and other optionally polyoxyethylenated sorbitan esters; polyethylene glycol stearate, polyoxyethylenated derivatives of castor oil, polyglycerol esters, polyoxyethylenated fatty alcohols,

polyoxyethylenated fatty acids, and copolymers of ethylene oxide and propylene oxide.--

<sup>35 ~~39~~</sup> ~~56~~. (New) Composition according to claim ~~20~~<sup>31</sup> wherein the amphoteric surfactant comprises substituted lauryl compounds of betaine.--

<sup>12</sup> ~~57~~. (New) Composition according to claim ~~32~~<sup>10</sup> wherein the compound which mimics juvenile hormones is selected from the group consisting of azadirachtin, diofenolan, fenoxycarb, hydroprene, kinoprene, methoprene, pyriproxyfen, tetrahydroazadirachtin, and 4-chloro-2-(2-chloro-2-methyl-propyl)-5-(6-iodo-3-pyridylmethoxy)-pyridizine-3(2H)-one.--

<sup>13</sup> ~~58~~. (New) Composition according to claim ~~32~~<sup>10</sup> wherein the chitin-synthesis inhibitor is selected from the group consisting of chlorfluazuron, cyromazine, diflubenzuron, fluazuron, flucycloxuron, flufenoxuron, hexaflumuron, lufenuron, tebufenozide, teflubenzuron, triflumuron, 1-(2,6-difluorobenzoyl)-3-(2-fluoro-4-(trifluoromethyl)phenylurea, 1-(2,6-difluoro-benzoyl)-3-(2-fluoro-4-(1,1,2,2-tetrafluoroethoxy)-phenylurea and 1-(2,6-difluoro-benzoyl)-3-(2-fluoro-4-trifluoro-methyl)phenylurea.--

--59. (New) Process according to claim 48 wherein the ectoparasites controlled by the composition are ticks.--

#### REMARKS

By the present amendment, amendments have been made to the language of the claims in order to overcome the Examiner's objections under 35 U.S.C. § 112 and to place the claims in more